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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,012	12/27/2001	Gary E. Western	29250/CE08435R	7848
27521	7590	04/01/2005	EXAMINER	
KEN BURRASTON KIRTON & MCCONKIE PO BOX 45120 SALT LAKE CITY, UT 84145-0120			BEAMER, TEMICA M	
			ART UNIT	PAPER NUMBER
			2681	

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/033,012

Applicant(s)

WESTERN, GARY E.

Examiner

Temica M. Beamer

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/18/2004 have been fully considered but they are not persuasive. Applicant argues that Moisio fails to disclose scheduling communication services "collectively" for a group of mobile stations, but rather discloses allocating one or more channels from the terminal group's priority list individually to a terminal within the group.

The examiner, however, only partially agrees. In one embodiment, Moisio discloses wherein a mobile terminal establishes a data connection, one or more of the best channels on the priority list of the terminal group is allocated to the terminal (page 5, lines 26-29).

However, in a different embodiment Moisio discloses wherein a base station serves several users in a group and a base station controller can allocate radio channels in advance to terminal groups (page 14, lines 31-36). Moisio further states that a terminal group can comprise of terminals communicating simultaneously (page 15, lines 3-8). This embodiment reads on the claimed invention of "collective" scheduling.

Based on the above remarks, the claims stand rejected as set forth below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Moisio, WO 01/45445 A1.

Regarding claim 1, Moisio discloses in a communication network operable to provide communication services to a plurality of mobile stations operating within the communication network, each mobile station being in communication with the communication network via an associated communication link, a method for scheduling the communication services comprising determining a characteristic of the associated communication link for each mobile station (page 10, lines 8-10); forming a group of mobile stations from the plurality of mobile stations based upon the characteristic of the associated communication link (page 3, line 31-page 4, line 1 and page 11, lines 15-26); and scheduling communication services collectively for the group of mobile stations (page 11, lines 15-26, page 15, lines 3-8).

Regarding claim 2, Moisio discloses the method of claim 1, wherein the characteristic of the associated communication link comprises at least one of: path loss, power control setting, bit error rate and delay (page 9, lines 7-15).

Regarding claim 3, Moisio discloses the method of claim 1, wherein forming a group of mobile stations comprises forming a plurality of groups of mobile stations, and wherein scheduling communication services collectively for the group of mobile stations comprises scheduling communication services collectively for each group of the plurality of mobile stations (page 11, line 15-page 12, line 7).

Regarding claim 4, Moisio discloses the method of claim 1, wherein the group of mobile stations comprises mobile stations having communication links with similar characteristics (page 10, line 25-page 11, line 10).

Regarding claim 5, Moisio discloses the method of claim 1, wherein scheduling communication services collectively for the group of mobile stations comprises scheduling communication services on a recurring basis (page 11, line 15-page 12, line 7).

Regarding claim 6, Moisio discloses the method of claim 1, wherein scheduling communication services collectively for the group of mobile stations comprises scheduling communication services on a sinusoidal basis (i.e., periodically updated) (page 12, lines 1-4).

Regarding claim 7, Moisio discloses the method of claim 1, wherein determining a characteristic of the associated communication link for each mobile station comprises determining a power control state (page 15, lines 5-8 and page 17, lines 25-32).

Regarding claim 8, Moisio discloses the method of claim 1, wherein scheduling communication services collectively for the group of mobile stations comprises transmitting schedule information to the group of mobile stations (page 16, lines 20-22).

Regarding claim 9, Moisio discloses the method of claim 1, wherein scheduling communication services collectively for the group of mobile stations comprises scheduling communication services for the group of mobile stations to minimize the transmit power needed to reach each mobile station of the group of mobile stations (to reduce interference) (page 13, lines 15-17 and page 15, lines 1-10).

Regarding claim 10, Moisio discloses the method of claim 1, wherein the group of mobile stations comprises a first mobile station scheduled to receive a downlink transmission and a second mobile station to request an uplink timeslot (page 14, line 32-page 15, line 15).

Regarding claim 11, Moisio discloses an apparatus for scheduling communication services within a communication network, the communication network providing communication services to a plurality of mobile stations operating within the communication network, the apparatus comprising: a base station system operable to establish communication links between the communication network and each of the plurality of mobile stations, the base station system being further operable to determine a characteristic of each of the communication links (page 3, line 31-page 4, line 12); a scheduling algorithm operating in accordance with the base station system to form a group of mobile stations from the plurality of mobile stations based upon the characteristic of each of the communication links, and to schedule communication services collectively for the group of mobile stations (page 15, lines 3-8, page 6, lines 9-14).

Regarding claim 12, Moizio discloses the apparatus of claim 11, wherein the characteristic of each of the communication links comprises at least one of: path loss, power control setting, bit error rate and delay (page 9, lines 7-15).

Regarding claim 13, Moizio discloses the apparatus of claim 11, wherein the base station system operates in accordance with the scheduling algorithm to form a plurality of groups of mobile stations and to schedule communication services for the plurality of groups (page 11, line 15-page 12, line 7).

Regarding claim 14, Moizio discloses the apparatus of claim 11, wherein the group of mobile stations comprises mobile stations having communication links with similar characteristics (page 10, line 25-page 11, line 10).

Regarding claim 15, Moizio discloses the apparatus of claim 11, wherein the scheduling algorithm comprises a recurring scheduling algorithm (page 11, line 15-page 12, line 7).

Regarding claim 16, Moizio discloses the apparatus of claim 11, wherein the scheduling algorithm comprises a sinusoidal scheduling algorithm (page 12, lines 1-4).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Beamer whose telephone number is (703) 306-5837. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (703) 306-0003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Temica M. Beamer
Primary Examiner
Art Unit 2681

March 21, 2005